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ABSTRACT

In the United States and Canada alike, expressions of concern over the fact that the demand for skilled workers far exceeds the current supply have been heard repeatedly. However, several studies would seem to indicate that, as familiar as these claims about the supply and demand for skilled workers may be, they are very contentious. If a Hudson Institute report is correct, 65%-75% of the new jobs in the fastest-growing occupations will require language and mathematics skills at or below the eighth-grade level. The findings of several recent studies, including a recent analysis of literacy requirements of jobs based on the National Adult Literacy Survey and new data from the U.S. Department of Labor, would seem to lend some measure of support to the possible existence of a literacy "surplus." In view of these data, it would seem that the arguments for increased funding for adult literacy programming should temper claims regarding the skills and knowledge needed to succeed in the workplace. For adult education policy, there would seem to be a need to emphasize the many benefits of adult education in addition to those related to improving one's job opportunities. More research and documentation of the other benefits of adult education is needed. (MN)

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1

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2

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Research Note 3/21/00

Are We Facing a "Literacy Surplus" in the Workforces of the United States and Canada

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In planning for future action in the field of adult literacy education, the National Institute for Literacy in the United States has been preparing a "vision" paper with an action agenda. The March 21, 2000 version of the Draft National Literacy Summit 2000 foundation paper includes a number of "challenges" that the adult education and literacy field faces (National Institute for Literacy, 2000). One of these states: QUOTE "Challenge 3: The skills and knowledge needed in order to succeed in the workforce are constantly increasing. The demand for skilled workers far exceeds the current supply, and this trend will continue through the first decade of the 21st century.... All jobs are becoming more complex and requiring employees at all levels to continually upgrade their skills."UNQUOTE

In Canada and the United Kingdom, in the wake of the International Adult Literacy Survey (IALS) similar concerns about literacy and workforce preparedness have been expressed.

However, as familiar as these claims about the supply and demands for skilled workers are by now, they are, to say the least, very contentious based on studies of the issues involved. On the one hand, consistent with the Draft National Literacy Summit 2000 foundation paper, the widely heralded Hudson Institute report called "Workforce 2000" suggested that there would be a "skills gap" between the qualifications of workers and the changing job mix of the American economy by the year 2000.

But in 1998 in a paper entitled "Beyond 2000: Future Directions for Adult Education" (available at www.nald.ca under Full Text Documents) I noted that the fact that unemployment was at record lows (less than 5 percent) suggested that most of those in the labor market looking for work had found some sort of job that they could perform with their existing skills. I reported that, using Department of Labor methods for estimating the Language and Mathematics requirements of jobs, a new Hudson Institute report entitled " Workforce 2020" (Judy & D'Amico (1997), had uncovered what might be called a potential "basic skills surplus". Looking at 422 occupations the authors found that even though the growing occupations have fewer jobs for adults with lower basic skills, the majority (65 to 75 percent) of jobs still have only demands in GED Levels 1 and 2, which Department of Labor studies have estimated as roughly equivalent to reading or mathematics as learned by the 3rd grade (GED Level 1) or 6th grade (GED Level 2) in school.

I noted that if the new Hudson Institute report was correct, 65-75 percent of the new jobs in the fastest growing occupations will require language and mathematics skills at or

below the 8th grade level in school. So how many adults have such skills? While we do not have any data for mathematics, the Young Adult Literacy Survey of 1985 report indicated that as far as reading is concerned, the reading skills of 80 percent of young adults in 1985 surpassed the skills of the average 8th grade student. Indeed, 60 percent of young adults performed better than the average 11th grader. If the same findings held for mathematics, and the schools continue to graduate students into adulthood with the same levels of skills as the 1985 young adults, then as we enter the next century we may well be in the position as a nation of having a "literacy surplus" in which the overall skills of the workforce exceed the overall demands of workplaces.

Now comes new evidence that seems to lend some measure of support to the literacy "surplus" possibility. In the Thursday Notes for March 16,2000, From the Desk of Ron Pugsley, Director of the U. S. Department of Education's Division of Adult Education and Literacy, an important announcement is made based on a new report (Barton, (2000). Citing this new study, the Thursday Note says, QUOTE "Jobs requiring an associate's degree or higher account for... just 16% of actual job openings, ... Meanwhile, nearly one third of 25-29 year-olds attain bachelor's or associate's degrees and will compete for those jobs." UNQUOTE This suggests a "surplus" of post-secondary educated adults over the requirements for this much education.

The new report by Paul Barton, long time education and work policy analyst, provides the most sophisticated analysis yet of literacy requirements of jobs based on the National Adult Literacy Survey (NALS) and new data from the U. S. Department of Labor. The report summarizes some very extensive analyses and, in a section called "The Bottom Line" states several conclusions regarding literacy, education requirements and jobs during the period 1986 through 2006. The asterisked items are taken from that summary:

*Those occupations with the highest literacy requirements and those with the lowest are both growing at rates well above the average, resulting in little net effect on overall literacy requirements.

*The largest growth in terms of numbers of jobs is in occupations with slightly lower average literacy requirements than for all "occupations."

*Averaging all occupations, the literacy requirements in 1986, 1996, and 2006 were the same.

*...the average years of schooling actually required for jobs rose from 10.0 in 1940 to 10.5 in 1970. During this period, the mean educational attainment of men rose from 8.6 years to 12.0 years, and for women from 9.8 years to 12.1 years.

*Analyses and projections of educational requirements from the mid-1980s all show no change, on the average, including projections out to 2006.

In addition to Barton's work, two new lines of research have been found that add additional support to the hypothesis of a growing "literacy surplus." In one line of

research, Krahn & Lowe (1999) devised a method of comparing the literacy skills of Canadians on the International Adult Literacy Survey with their reported use of literacy on their jobs. They report QUOTE" (1) 20 percent of Canadians are employed in jobs that do not take advantage of their literacy skills, (2) A greater proportion of Canadian workers fall under the literacy surplus category than fall under the literacy deficit category." UNQUOTE

If the U.S. is like Canada, then presumably similar findings would hold for the U.S. But while parallel studies to the Canadian studies have not been found for the U.S., the long awaited report by Andrew Sum (1999, September) on Literacy in the Labor Force has arrived from the National Center for Education Statistics. Based on analyses of the National Adult Literacy Survey (NALS) data, when comparing the average required literacy proficiencies for jobs in 1990 with predicted proficiencies for 2005, Sum concludes, QUOTE "These mean scores are roughly equivalent to those existing in 1990, indicating that no substantial gains in proficiencies would be required to meet future targets. Unless substantive upgrading of literacy-related skills occur within occupations, these data provide little evidence of a major skills mismatch due to higher literacy requirements of future jobs.." (page 95) UNQUOTE

Sum goes to say that in the context of 1990's job market, QUOTE "Under utilization of existing skills and abilities appeared to be surfacing in a growing number of the nation's labor market areas, reflecting weak growth in jobs overall and actual declines in management and defense-related positions in the early 1990s."(page 98) UNQUOTE

This "under utilization of skills" seems supported by Barton's (2000, January) study which Ron Pugsley's Thursday Note for March 16, 2000 quoted as showing that , QUOTE "Jobs requiring an associate's degree or higher account for... just 16% of actual job openings, ... Meanwhile, nearly one third of 25-29 year-olds attain bachelor's or associate's degrees and will compete for those jobs." UNQUOTE I noted earlier that this suggests a "surplus" of post-secondary educated adults over the requirements for this much education.

At the very least then, it seems that arguments for increased funding for the AELS should temper such claims as "the skills and knowledge needed in order to succeed in the workforce are constantly increasing" and "The demand for skilled workers far exceeds the current supply..." because the "hard" evidence is not there to support such claims. This in no way lessens the importance of the numerous findings of correlations among literacy (and other cognitive) skills and further education, better occupational opportunities and higher earnings. There is still likely to be very few paths to a better standard of living in industrialized nations that are to at least some extent under the control of the individual as getting as much education and developing as much literacy and other intellectual, creative, and interpersonal "skills" as one can. But adult students who are looking for upward mobility in their careers should also be aware that there is tough competition for the best and limited job opportunities and that they must show considerable perseverance in their pursuit of education.

For adult education policy, there would seem to be a need to emphasize the many benefits of adult education in addition to those related to improving one's job opportunities. Improvements

in health related activities, caring better for one's children, improving children's educational achievements, enjoying a broader range of informational and entertainment resources, prolonging one's life, with reductions in medicare and other medical expenses, are all among other benefits that we need to be documenting in adult education programs in addition to workforce related impacts. There are small beginnings in documenting these other benefits, but adult education is to move from the margins to the mainstream of our national education structure, much more research and documentation needs to be accomplished to make the case for investments in adult education as strong as possible.

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